REPORT DOCUMENTATION PAGE

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.

Form Approved OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Service Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE (DD-MM-YYYY)	2. REPORT TYPE		3. DATES COVERED (From - To)		
04/10/2013	Final Environmental Impact Statemen	t	30/12/2009-2/12/2013		
4. TITLE AND SUBTITLE F-35A OPS 1 Record of Decision F-			5a. CONTRACT NUMBER		
			GS-10F-0122J		
35A OPS 3 Record of Decision		5b. GRANT NUMBER			
F-35A Operational Basing Environmen	tal Impact Statement Vol I				
1	tal Impact Statement Vol II Appendices A-E	N/A			
		5c. PROGRAM ELEMENT NUMBER			
			N/A		
6. AUTHOR(S)			JECT NUMBER		
Cardno TEC, Inc			N/A		
Wyle Laboratories, Inc.			(Allumper		
Scientific Resources Associated		5e. TAS	K NUMBER		
			N/A		
		5f. WOR	K UNIT NUMBER		
			N/A		

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S Army Corps of Engineers
Geotechnical and Environmental Engineering Branch (CESPK-ED-GI)
1325 J Street

8. PERFORMING ORGANIZATION REPORT NUMBER

N/A

Sacramento, CA 95814

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Headquarters Air Combat Command

Installations and Mission Support Directorate, Engineering Division (A7N)

129 Andrews Street

Langley Air Force Base, VA 23665

10. SPONSOR/MONITOR'S ACRONYM(S)

ACC/A7N

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

N/A

12. DISTRIBUTION/AVAILABILITY STATEMENT

DISTRIBUTION A. Approved for public release: distribution unlimited.

13. SUPPLEMENTARY NOTES

Report totals 2440 pages

14. ABSTRACT

Development and fielding of the F-35A represents one of the priority defense programs for the U.S. The F-35 program was initiated in the early 1990s to provide the premier strike fighter aircraft to the Air Force, Marine Corps, and Navy, as well as international partners for the next several decades. Currently, the Air Force is scheduled to acquire and field over 1,700 F-35As over the next several decades; this basing action is only a part of the Air Force's program to assure availability of combat-ready pilots and maintenance personnel in the most advanced fighter aircraft in the world. This Environmental Impact Statement focuses on the analysis of alternative locations for and the Records of Decision for the Air Force's initial operational wing locations.

15. SUBJECT TERMS

F-35A, Environmental Impact Statement, Environmental Analysis, Record of Decision, Operational Location, US Air Force

16. SECURITY	CLASSIFICATIO	N OF:			19a. NAME OF RESPONSIBLE PERSON	
a. REPORT	b. ABSTRACT	c. THIS PAGE	ABSTRACT	OF PAGES	Larry H. Dryden	
Unclassified	SAR	SAR	SAR	PAGES	19b. TELEPHONE NUMBER (Include area code)	1
Officiassified	SAK	SAK	57110		(757) 764-2192	

INSTRUCTIONS FOR COMPLETING SF 298

- **1. REPORT DATE.** Full publication date, including day, month, if available. Must cite at least the year and be Year 2000 compliant, e.g. 30-06-1998; xx-06-1998; xx-xx-1998.
- **2. REPORT TYPE.** State the type of report, such as final, technical, interim, memorandum, master's thesis, progress, quarterly, research, special, group study, etc.
- **3. DATES COVERED.** Indicate the time during which the work was performed and the report was written, e.g., Jun 1997 Jun 1998; 1-10 Jun 1996; May Nov 1998; Nov 1998.
- **4. TITLE.** Enter title and subtitle with volume number and part number, if applicable. On classified documents, enter the title classification in parentheses.
- **5a. CONTRACT NUMBER.** Enter all contract numbers as they appear in the report, e.g. F33615-86-C-5169.
- **5b. GRANT NUMBER.** Enter all grant numbers as they appear in the report, e.g. AFOSR-82-1234.
- **5c. PROGRAM ELEMENT NUMBER.** Enter all program element numbers as they appear in the report, e.g. 61101A.
- **5d. PROJECT NUMBER.** Enter all project numbers as they appear in the report, e.g. 1F665702D1257; ILIR.
- **5e. TASK NUMBER.** Enter all task numbers as they appear in the report, e.g. 05; RF0330201; T4112.
- **5f. WORK UNIT NUMBER.** Enter all work unit numbers as they appear in the report, e.g. 001; AFAPL30480105.
- **6. AUTHOR(S).** Enter name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. The form of entry is the last name, first name, middle initial, and additional qualifiers separated by commas, e.g. Smith, Richard, J, Jr.
- 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES). Self-explanatory.

8. PERFORMING ORGANIZATION REPORT NUMBER.

Enter all unique alphanumeric report numbers assigned by the performing organization, e.g. BRL-1234; AFWL-TR-85-4017-Vol-21-PT-2.

- **9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES).** Enter the name and address of the organization(s) financially responsible for and monitoring the work.
- **10. SPONSOR/MONITOR'S ACRONYM(S).** Enter, if available, e.g. BRL, ARDEC, NADC.
- 11. SPONSOR/MONITOR'S REPORT NUMBER(S). Enter report number as assigned by the sponsoring/monitoring agency, if available, e.g. BRL-TR-829; -215.
- **12. DISTRIBUTION/AVAILABILITY STATEMENT.** Use agency-mandated availability statements to indicate the public availability or distribution limitations of the report. If additional limitations/ restrictions or special markings are indicated, follow agency authorization procedures, e.g. RD/FRD, PROPIN, ITAR, etc. Include copyright information.
- **13. SUPPLEMENTARY NOTES.** Enter information not included elsewhere such as: prepared in cooperation with; translation of; report supersedes; old edition number, etc.
- **14. ABSTRACT.** A brief (approximately 200 words) factual summary of the most significant information.
- **15. SUBJECT TERMS.** Key words or phrases identifying major concepts in the report.
- **16. SECURITY CLASSIFICATION.** Enter security classification in accordance with security classification regulations, e.g. U, C, S, etc. If this form contains classified information, stamp classification level on the top and bottom of this page.
- 17. LIMITATION OF ABSTRACT. This block must be completed to assign a distribution limitation to the abstract. Enter UU (Unclassified Unlimited) or SAR (Same as Report). An entry in this block is necessary if the abstract is to be limited.

Introduction

The United States Air Force (Air Force) is issuing this Record of Decision (ROD) for the F-35A Operational Basing Environmental Impact Statement (EIS) (Federal Register, Vol. 78, No. 193, EIS No. 20130295, pg. 61845, October 4, 2013). In making this decision, the information, analysis, and public comments contained in the F-35A Operational Basing Final Environmental Impact Statement (FEIS) were considered, along with other relevant matters. The Air Force has decided to issue two Records of Decision for the proposed beddown of F-35A operational aircraft; one for Air Combat Command (ACC) and the other for the Air National Guard installations. This ROD covers the ACC basing decision; a ROD covering the Air National Guard basing decision will be issued separately.

The two RODs reflect separate and distinct decisions that the Air Force is making. The Air Force is the lead agency, with the Department of the Navy and Federal Aviation Administration (FAA) acting as cooperating agencies.

This ROD is prepared in accordance with the Council on Environmental Quality regulations implementing the National Environmental Policy Act at Title 40 Code of the Federal Regulations, § 1505.2, *Record of decision in cases requiring environmental impact statements*. Specifically, this ROD:

- States the Air Force's decision (page 1);
- Identifies alternatives considered by the Air Force in reaching the decision (page 2) and specifies the ACC environmentally preferred alternative (page 2);
- Identifies and discusses relevant factors that were considered in making the decision among the alternatives and states how those factors entered into the decision (page 2);
 and
- States whether all practicable means to avoid or minimize environmental harm from the selected alternatives were adopted, and if not, why they were not adopted, and summarizes the applicable monitoring and enforcement program adopted for the applicable mitigations (pages 3 through 7).

Decision

Of the three ACC alternative basing locations considered in the FEIS (Hill Air Force Base (AFB), UT; Mountain Home AFB, ID; and Shaw AFB, SC), the Air Force has decided to base seventy two (72) F-35A aircraft with associated construction at Hill AFB in Utah to accommodate aircraft anticipated to start arriving in 2015. This beddown of 72 F-35A primary assigned aircraft (PAA) is divided into three operational squadrons each with twenty-four (24) F-35A PAA, support personnel and facilities. The disposition of the F-16 fighter aircraft currently assigned to Hill AFB will be determined at a later date.

Background

Development and fielding of the F-35A represents one of the priority defense programs for the U.S. The F-35 program was initiated in the early 1990s to provide the premier strike fighter aircraft to the Air Force, Marine Corps, and Navy, as well as international partners, for the next several decades.

Currently, the Air Force is scheduled to acquire and field over 1,700 F-35As over the next several decades; this basing action is only a part of the Air Force's program to assure availability

of combat-ready pilots and maintenance personnel in the most advanced fighter aircraft in the world. This ROD focuses on the location for the Air Force's first operational wing; the Air Force will make basing decisions in the future for additional operational and training squadrons in the U.S. and at bases overseas.

The Air Force designated the F-35A to replace the Air Force's F-16 and A-10 fighter attack aircraft. F-35A aircraft will fulfill a wide range of roles and missions.

Alternative Identification

As more fully discussed in the FEIS (pages. 2-24 through 2-26, Section 2.2.1), the Air Force assembled a group of subject matter experts to embark on an internal review process to identify potential locations for basing the F-35A. The team used specified planning conventions and criteria to identify potential candidate bases, as generally follows:

- Applied screening criteria to 205 locations that could possibly support the F-35A operational mission
- Reduced the 205 basing locations to six locations, which were carried forward for analysis as reasonable alternatives in the FEIS (pages 26 through 27, Section 2.1).

As pertains to the decision in this ROD, the basing alternatives considered were:

- Hill AFB, Utah
- Mountain Home AFB, Idaho
- Shaw AFB, South Carolina

The No-Action Alternative was also evaluated for each of the three basing alternative locations.

Environmentally Preferable Alternative

Of the three alternatives analyzed, the environmentally preferable alternative is Hill AFB ACC Scenario 1 (FEIS, pg. 2-31, Table 2-12). Under Hill AFB ACC Scenario 1 (24 total F-35A aircraft), the total number of acres, population, households, and receptors exposed to noise levels of 65 decibels Day- Night Average Noise Levels and greater would decrease relative to the baseline conditions.

Basis of Decision

Hill AFB was selected because it presents the best mix of cost, infrastructure, and associated training range and airspace of the three active component candidate bases. Hill has ready access to the Utah Test and Training Range, one of the largest and most flexible airspace and ranges in the United States. The Ogden Air Logistics Center is located on Hill AFB which provides the greatest opportunity for synergy between the operational and logistics communities in managing a new, highly complex weapon system. ACC's existing F-16 squadrons at Hill AFB are associated with a large Air Force Reserve Command unit. This classic association will convert to F-35As as the Active Duty unit transitions. Likewise, no additional manpower positions will need to be sourced from across the Air Force in order to stand-up these squadrons at Hill AFB. Finally, this decision will not disrupt the Air Force's ability to present essential combat capability to the Combatant Commanders during the stand-up of these F-35A squadrons at Hill AFB.

Public Involvement

Public involvement was integral to the Air Force's development of the FEIS. Many comments were received and considered, including those received during scoping, at public hearings, and during the public comment period on the draft EIS (see FEIS, pgs. 1-9 and 1-10, Sections 1.5.2 and 1.5.3). Comments received on the FEIS, although not included in the FEIS, were considered in making this decision.

Information reflecting public involvement associated with the three basing alternative locations can be found in each base-specific Chapter 2 at Section XX2.5 (e.g., HL2.5 for Hill AFB). Furthermore, Volume II, Appendix A and E provide public involvement documentation as well as comments received and Air Force responses to comments. Public notices and meetings included:

- Notice of Intent: Published December 30, 2009 in the Federal Register (FR), Volume 74, Number 249, page 69080.
- Scoping Period: Initiated December 30, 2009 and ended March 1, 2010. During this time 19 scoping meetings were held in Florida, Georgia, Idaho, Maine, Nevada, New Hampshire, New York, South Carolina, Utah, and Vermont.
- Draft EIS Notice of Availability: Published April 13, 2012 in the FR, Volume 77, Number 72, page 22315.
- Public Comment and Review Period: A 45-day comment period was initiated with the Notice of Availability publication in the FR and was to end on June 4, 2012; however, public comment was extended to June 20, 2012 to accommodate an additional hearing in Maine.
- Public Hearings: During the public comment and review period, 17 hearings were held spread between Florida, Georgia, Idaho, Maine, Nevada, New Hampshire, New York, South Carolina, Utah, and Vermont.
- *Updated Draft EIS Notice of Availability*: Published in the FR on May 31, 2013, Volume 78, Number 105, page 32645.
- Public Comment and Review: A 45-day comment period was initiated May 31, 2013 and ended on July 16, 2013.
- Final EIS Notice of Availability: Published in the FR on October 4, 2013, Volume 78, Number 193, page 61845. This initiated the mandatory 30-day waiting period prior to ROD signature.

Management Actions and Mitigations

Avoiding or reducing potential environmental impacts was a consideration guiding the analysis of the F-35A basing alternatives. Some management actions are built or designed into the proposed action and alternatives. Mitigation measures are implemented as compensatory measures.

Specific management actions (i.e., those required by regulation or Air Force guidance and instructions) to facilitate the implementation of the decision were identified in the FEIS and will be carried forward and implemented (FEIS, Section 2.6). These measures include continuation of ongoing operational restrictions and avoidance measures and are summarized below by applicable environmental resource areas. A mitigation plan will be developed and put in place as reflected in this ROD and in the FEIS.

Given the relative immaturity of the F-35 program, identification of new data and information relative to the F-35A may arise and it is possible that the impacts identified in the FEIS (Table 2-12, et al) and the effectiveness of prescribed management and mitigation measures may be different from those expected. Consequently, new information may become available, or the effectiveness of mitigation measures may be different than expected. An understanding of various aspects that are part of a complex interrelated F-35A operational environment may not be achieved without a more long-term process built around a continuous cycle of experimentation, evaluation, learning, and improvement over time.

To accommodate this, within 90 days of the signature of this ROD, Air Combat Command will develop a mitigation plan that identifies principal and subordinate organizations having responsibility for oversight and execution of specific mitigation and management actions. The plan will include but not be limited to the following:

- · Identification of the specific actions
- Identification of the responsible organization for each action
- Timing for execution of the actions
- Definition of the adaptive management approach to be used

An adaptive management program will be developed in accordance with the President's Council on Environmental Quality mitigation and monitoring guidance¹, and other legal and generally accepted practices. Furthermore, the Air Force intends to provide flexibility in its adaptive management approach in order to comply with regulatory requirements.

Management Actions Applicable to Hill AFB

Airspace Management and Use

- Coordinate closely with the FAA Air Route Traffic Control Centers and other FAA
 entities to minimize conflicts with civil and commercial aviation.
- Avoid airports and airfields underlying military airspace using standard procedures.

Noise

- Once the full complement of F-35A aircraft are operating at the base, prepare a noise study at Hill AFB to validate the operational data in order to re-evaluate projected noise levels.
- Adhere to all existing FAA and local avoidance procedures, flight restrictions, scheduling adjustments, and other practices designed to reduce aircraft noise and overflights.
- Utilize advanced simulators for training to the extent practicable.
- Avoid, to the extent practicable:
 - Identified seasonably sensitive American Indian ceremonies or other seasonal activities.
 - Low-altitude (below 5,000 feet AGL) overflights of identified seasonally sensitive ranching and recreation activities.
 - Low-altitude overflights (below 5,000 feet AGL) on holidays.

¹ "Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact," January 14, 2011

Air Quality

- Employ fugitive dust control and soil retention practices including:
 - Water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the construction area.
 - Temporary wind fencing around sites being graded or cleared.
 - Suspension of all soil disturbance activities when winds exceed 25 miles per hour or when visible dust plumes emanate from the site.
 - Covering truck loads that haul dirt, sand, or gravel.
 - Designating personnel to monitor the dust control program and to order increased watering, as necessary, to prevent the transport of dust off-site.
- Employ, where feasible, construction equipment emission control measures by:
 - Maintaining equipment according to manufacturer specifications.
 - Restricting idling of equipment and trucks to a maximum of five minutes at any location.
 - Employing diesel oxidation catalysts and/or catalyzed diesel particulate traps.
 - Using electricity from power poles rather than temporary diesel- or gasoline-powered generators.
 - Providing temporary traffic control, such as a flag person, during all phases of construction to maintain smooth traffic flow.
 - Keeping construction equipment and equipment staging areas away from sensitive receptor areas (such as day care centers).
 - Re-routing construction trucks away from congested streets or sensitive receptor areas.
 - Using construction equipment with engines that meet U.S. Environmental Protection Agency Tier 3 and 4 non-road standards.
 - Using alternatively-fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric.
 - Minimize traffic speeds on all unpaved roads.

Safety

- Working with the F-35 Joint Program Office and the Directorate of Plans, Programs and Requirements at ACC, develop F-35A and location-specific emergency fuel dumping procedures.
- Share information with local fire departments on F-35A crash response procedures.

Soils and Water

- Sequence construction activities to limit the soil exposure for long periods of time.
- Manage on-site stormwater to prevent discharges into nearby surface waters through site
 planning with low-impact design principles and engineered storm water retention ponds
 (or swales).
- Treat disturbed areas (after clearing, grading, earthmoving, or excavation is completed) by watering, re-vegetation, or by spreading non-toxic soil binders until they are paved or otherwise developed to prevent dust generation.
- Update Storm Water Pollution Prevention Plans as needed.

- Store chemicals, cements, solvents, paints, or other potential water pollutants in locations where they cannot cause runoff pollution.
- Install gravel pads at construction area access points to prevent tracking of soil onto paved roads.

Wildlife, Vegetation, and Wetlands

- Continue adherence to Bird/Wildlife Aircraft Strike Hazard program.
- Avoid spreading invasive nonnative species; preclude vehicles from driving in areas with known invasive nonnative species problems.
- Update, where needed, the base Integrated Natural Resources Management Plan.
- Perform any repairs, maintenance, and use of construction equipment (i.e., cement mixers) in designated "staging areas" designed to contain any chemicals, solvents, or toxins from entering surface waters.
- Incorporate into the design and construction of paved surface areas a slope sufficient enough to direct potential runoff away from wetland areas.

Cultural Resources

- Continued avoidance of identified seasonally sensitive American Indian ceremonies or other seasonal activities.
- Track results of government-to-government consultation with American Indian Tribes for Hill AFB to minimize impacts from noise.

Land Use and Recreation

- Once the full complement of F-35A aircraft are operating at the base, prepare a noise study at Hill AFB to validate operational data to re-valuate projected noise levels.
- Avoid, to the extent practicable:
 - Identified seasonably sensitive American Indian ceremonies or other seasonal activities.
 - Low-altitude (below 5,000 feet AGL) overflights of identified seasonally sensitive ranching and recreation activities.
 - Low-altitude overflights (below 5,000 feet AGL) on holidays.

Community Facilities and Public Services

- Continue recycling and reuse programs to accommodate waste generated by construction and operational activities.
- Incorporate Leadership in Energy and Environmental Design and sustainable development concepts into design and construction to achieve optimum resource efficiency, sustainability, and energy conservation.

Hazardous Materials and Waste

- Follow established procedures for handling hazardous materials and disposing of hazardous wastes.
- Update Hazardous Waste Management Plan to account for any new and/or changed waste streams.

Determination of Whether All Practical Means to Avoid or Minimize Environmental Harm Have Been Adopted

The Air Force considered all practicable means to avoid or minimize environmental harm. The following noise mitigation measures at Hill AFB were considered and evaluated but were either not operationally workable or did not substantially reduce noise impacts, and therefore are not considered to be practicable at this time.

Changing aircraft performance: Reducing aircraft wing flap settings, delaying flap extension, using unusually high speeds during aircraft landing approaches, or using reduced thrust (i.e., lowering power settings) are not operationally feasible or safe. These unsafe operating actions were not carried forward as potential mitigations.

Reduced use of afterburners: Afterburner use during departure is required for heavy aircraft loads that must be carried to accomplish certain training missions. The number of afterburner departures reflects training requirements and reducing them further would adversely affect training for combat readiness.

Modify approach or departure tracks: Flight tracks in the vicinity of Hill AFB are limited by the terrain and adjacent communities. To ensure safety of flight near an airfield, a minimum distance must be maintained above ground elevation.

Unavoidable Impacts

Certain F-35A beddown activities are projected to result in disturbance and/or noise within areas not previously or recently subjected to these effects. Some of these noise effects could be considered adverse or annoying to potentially affected individuals.

Decision

After considering the potential environmental impacts contained in the FEIS, as well as other factors relative to national policy and defense, including current military operational needs and cost, the Air Force has decided to base 72 F-35A aircraft at Hill AFB in Utah.

Timothy K. Bridges

Deputy Assistant Secretary of the Air Force

(Installations)

Date

2 Dec13